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JUN 19 1970

CURRENT SERIAL RECORDS

# **WATER SUPPLY OUTLOOK FOR IDAHO**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,  
and

IDAHO STATE RECLAMATION ENGINEER

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF  
JUNE 1, 1970

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82601

### PUBLISHED BY OTHER AGENCIES.

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# ***WATER SUPPLY OUTLOOK FOR IDAHO***

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

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*Report prepared by*

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SOIL CONSERVATION SERVICE  
SNOW SURVEY SECTION  
ROOM 345, 304 N. 8th. ST.  
BOISE, IDAHO 83702



# WATER SUPPLY OUTLOOK for IDAHO



JUNE 1, 1970

## SNOW SURVEYS, SUPPLEMENTAL MEASUREMENTS AND CORRECTIONS

Snow surveys made on key courses near the first of June indicate that high elevation snowmelt was greatly retarded by low temperatures experienced during May throughout the state. Many courses had near record snowpack as of June 1.

Runoff during April was at a record low throughout Idaho and remained low until mid-May. General snowmelt occurring during the last two weeks of May resulted in near normal flows on most streams by the first of June with very high volume flows in a few areas. The Henrys Fork of the Snake River in eastern Idaho experienced a record high peak flow on May 27th, resulting in considerable flood damage.

Seasonal streamflow as forecast on May 1 is not expected to be significantly altered by the delayed runoff if normal spring conditions are experienced during the rest of the snowmelt period.

This report carries corrected measurements made earlier in the season. In some cases, resurveys were made, and others, errors were found in the data.



## SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE <sup>b</sup>

JUNE 1, 1970 MEASUREMENTS

Benton Spring	16A3	4900	6/1	2	1.0	--	--
Big Creek Summit	15E2	6600	6/5	43	22.0	0.0	--
Bogus Basin	16F2	6120	5/28	19	9.8	--	--
Brundage Mountain	16D6	7560	5/27	93	48.4	26.8	--
Buck Meadows	15D5	5600	5/28	37	16.9	--	--
Coolwater Mountain	15C7	6200	5/31	58	31.4	0.0	--
Coolwater Mountain (R)	15C7	6200	5/31	--	23.9	0.0	--
Coolwater Mountain (SP)	15C7	6200	5/31	--	20.3	--	--
Crater Meadows	15C9	6100	5/31	68	47.6	18.6	--
Elk Butte	16C15	5550	6/1	0	0.0	0.0	--
Galena Summit	14F12	8795	6/1	30	13.4	3.0	--
Gibbons Pass Mont.	13D2	7100	5/29	30	14.9	0.9	7.6
Goat Lake	14C9	6600	6/1	67	30.6	30.3	--
Granite Peak	15B13	6000	6/1	68	32.4	22.4	--
Hemlock Butte	16C6	5500	5/31	79	44.8	18.4	--
Hemlock Butte (R)	16C6	5500	5/31	--	43.3	20.4	--
Hemlock Butte (SP)	16C6	5500	5/31	--	40.6	21.9	--
Hoodoo Basin Mont.	15C8	6000	5/28	76	37.8	24.9	--
Hoodoo Creek Mont.	15C1	5900	5/28	74	36.5	24.6	32.0
Hoodoo Basin (SP) Mont.	15C8	6000	5/28	--	34.4	--	--
Lookout	15B2	5250	6/1	42	20.7	16.6	--
Lost Lake	15B14	6000	6/1	79	41.0	43.0	--
Medicine Ridge	15B4	6150	6/1	69	31.0	25.0	--
Moore's Creek Summit	15F1	6100	6/4	29	14.2	4.4	6.8
Mosquito Ridge (SP)	16A4	5110	5/31	--	14.0	--	--
Mountain Meadows	15D6	6300	5/28	37	16.6	--	--
Orogrande Mountain	15D4	7800	5/31	98	47.4	27.6	--
Orogrande Mountain (R)	15D4	7800	5/31	--	44.2	26.1	--
Schweitzer Bowl	16A6	4500	5/28	0	0.0	0.0	--
Schweitzer Ridge	16A5	6100	5/28	60	29.5	43.0	--
Trinity Mountain	15F5	7780	6/1	62	32.6	--	--

SUPPLEMENTAL MEASUREMENTSNOVEMBER 1, 1969

Midway	16C12	2200	10/30	0	0.0	--	--
Pierce Ranger Station	15C5	3170	11/1	0	0.0	0.4	--

NOVEMBER 15, 1969

Pierce Ranger Station	15C5	3170	11/15	0	0.0	0.6	--
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(b) 1953-67, 15 year period. \* Not located directly on this drainage. \* Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE <sup>b</sup>

SUPPLEMENTAL MEASUREMENTSDECEMBER 1, 1969

Boulder Creek	16D1	5500	11/28	T	T	3.6	--
China Hat	11G2	6300	12/1	0	0.0	1.3	--
Emigrant Summit	11G6	7350	12/1	7	1.8	4.6	--
Lower Pebble	12G6	5800	12/1	0	0.0	--	--
Midway	16C12	2200	12/3	T	T	--	--
Pierce Ranger Station	15C5	3170	11/30	0	0.0	0.6	--
Somsen Ranch	11G1	7000	12/1	4	0.5	3.0	--
Trinity Mountain	15F5	7780	12/2	6	1.2	--	--

DECEMBER 15, 1969

Pierce Ranger Station	15C5	3170	12/15	7	1.8	--	--
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JANUARY 1, 1970

Silver Creek Ridge	15E5	5700	1/9	30	7.2	--	--
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JANUARY 15, 1970

Bad Bear	15F2	5500	1/16	28	7.6	9.7	--
Bogus Basin	16F2	6120	1/15	54	13.0	15.3	--
Bogus Basin Road	16F4	5360	1/20	24	7.2	5.8	--
Galena	14F1	7300	1/14	45	8.6	13.1	--
Galena Summit	14F12	8795	1/14	49	9.6	17.6	--
Moore's Creek Summit	15F1	6100	1/16	70	15.9	23.0	--
Mount Baldy	14F9	9000	1/16	43	8.0	14.8	11.0
Pierce Ranger Station	15C5	3170	1/14	14	3.2	10.4	--

FEBRUARY 1, 1970

Ozone	11F4	5800	1/28	T	T	T	--
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FEBRUARY 15, 1970

Bad Bear	15F2	5500	2/13	40	14.1	18.6	--
Bogus Basin	16F2	6120	2/17	70	25.8	28.4	16.5
Bogus Basin Road	16F4	5360	2/17	14	5.2	10.9	--
Galena	14F1	7300	2/16	52	15.2	24.6	--
Galena Summit	14F12	8795	2/16	60	17.2	27.9	--
Moore's Creek Summit	15F1	6100	2/13	89	30.6	37.7	--
Mount Baldy	14F9	9000	2/13	47	12.2	27.8	--
Pierce Ranger Station	15C5	3170	2/13	20	6.0	--	--

(b) 1953-67, 15 year period. \* Not located directly on this drainage. \* Estimated 1953-67, 15 year Average. (A) Aerial observation; Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

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SUPPLEMENTAL MEASUREMENTSMARCH 15, 1970

Bad Bear	15F2	5500	3/17	41	16.8	--	--
Big Springs	11E9	6500	3/16	64	22.2	--	--
Bogus Basin	16F2	6120	3/16	80	30.7	30.4	20.6
Bogus Basin Road	16F4	5360	3/16	2	0.8	11.0	--
Fourth of July Summit	16B3	3100	3/13	29	10.2	17.6	--
Galena	14F1	7300	3/13	62	18.8	27.8	--
Galena Summit	14F12	8795	3/13	74	22.0	30.8	--
Lookout	15B2	5250	3/13	96	31.9	44.8	--
Moore's Creek Summit	15F1	6100	3/17	98	38.6	38.1	--
Mount Baldy	14F9	9000	3/16	62	17.2	31.6	19.0
Pierce Ranger Station	15C5	3170	3/13	16	6.0	14.7	11.4
Prairie	15F6	4900	3/14	16	6.1	10.3	--
Sherwin	16C1	3200	3/14	34	11.3	18.2	--
Targhee Pass	11E34	7000	3/16	53	14.7	--	--
Valley View	11E8	6500	3/16	51	15.4	--	--

APRIL 1, 1970

Coolwater Mountain	15C7	6200	4/8	110	38.4	29.5	30.6*
Fish Lake Airstrip	15C2	5000	4/8	113	40.2	37.5	40.9
Hemlock Butte	16C6	5500	4/8	132	51.2	48.9	52.1*
Orogrande Mountain	15D4	7800	4/8	114	39.9	38.9	38.8*
Shanghai Summit	15C4	4600	4/8	67	25.6	30.9	29.5*

APRIL 15, 1970

Above Burke	15B8	4100	4/14	57	22.9	--	--
Galena	14F1	7300	4/16	55	20.2	22.2	--
Galena Summit	14F12	8795	4/16	76	24.9	30.6	--
Lookout	15B2	5250	4/15	99	39.9	42.9	--
Moore's Creek Summit	15F1	6100	4/17	88	36.0	34.6	30.2
Mount Baldy	14F9	9000	4/15	65	19.2	32.3	--
Pierce Ranger Station	15C5	3170	4/14	2	0.6	4.3	5.0
Prairie	15F6	4900	4/15	1	0.3	0.0	--

MAY 1, 1970

Outlaw Creek	15B12	3750	5/4	T	T	0.0	8.0*
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			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE <sup>b</sup>

SUPPLEMENTAL MEASUREMENTSMAY 15, 1970

Atlanta Summit	15F4	7500	5/15	86	36.0	--	--
Bogus Basin	16F2	6120	5/18	53	25.5	T	--
Galena	14F1	7300	5/15	27	11.6	0.6	--
Galena Summit	14F12	8795	5/15	60	24.8	20.2	--
Lookout	15B2	5250	5/14	86	37.9	26.6	--
Moore's Creek Summit	15F1	6100	5/18	70	32.7	12.8	--
Trinity Mountain	15F5	7780	5/14	104	46.6	--	--

CORRECTIONS TO PREVIOUSLY PUBLISHED 1970 DATAJANUARY 1, 1970

Wet Creek Summit	13E7	7600	12/31	16	2.5	3.7	4.3*
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FEBRUARY 1, 1970

Above Burke	15B8	4100	1/21	38	9.4	--	--
Lookout	15B2	5250	2/2	88	24.4	38.7	25.0
Magic Mountain	14G2	6700	1/27	57	17.2	12.3	10.8*
Mosquito Ridge	16A4	5110	1/30	80	22.0	--	--
Pole Creek Rgr. Sta.	15H14	8330	2/1	53	15.6	14.2	10.8*
Webber Creek	12E5	6700	1/29	16	3.0	7.8	3.2*

MARCH 1, 1970

Deadwood Airstrip	15E10	5440	2/24	46	17.9	21.3	13.7*
Deadwood Dam	15E7	5290	2/24	46	19.0	23.4	14.8
Tripod Summit	16E3	5200	2/28	57	21.3	23.2	15.6*

APRIL 1, 1970

Kellogg Peak	16B5	5560	4/3	83	30.6	39.6	33.5*
Lower Pebble	12G6	5800	3/31	32	11.8	18.0	--
Pebble Creek	12G2	6550	3/31	44	16.1	18.2	13.4
Sunset	15B9	5600	4/3	100	32.7	42.9	35.6*

MAY 1, 1970

Iron Bog	13F11	7650	4/30	23	7.8	12.0	--
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(b) 1953-67, 15 year period. \* Not located directly on this drainage. \* Estimated 1953-67, 15 year Average. (A) Aerial observation; Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

# Agencies and Organizations Cooperating in Idaho Snow Surveys

## GOVERNMENT AGENCIES

### Canada:

Department of Lands, Forests, and  
Water Resources, British Columbia  
Department of Resources and Development,  
Water Resources Division

### States:

Idaho State Reclamation Engineer  
State of Idaho Department of Fish and Game  
University of Idaho  
Idaho State University  
Montana Agricultural Experiment Station  
Montana State Water Conservation Board  
Nevada Cooperative Snow Surveys  
Oregon Agricultural Experiment Station  
Oregon Cooperative Snow Surveys  
Oregon State Engineer and Corps of  
State Watermasters  
Utah Cooperative Snow Surveys  
Wyoming Cooperative Snow Surveys

### Federal:

U. S. Army Engineers  
U. S. Department of Agriculture  
Forest Service  
Agricultural Research Service  
U. S. Department of Commerce  
Environmental Sciences Service Administration,  
Weather Bureau  
U. S. Department of the Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Fish and Wildlife Service  
Water Resources Division, Geological Survey  
Indian Service  
National Park Service  
Bureau of Land Management

## PUBLIC UTILITIES

The Montana Power Company  
Washington Water Power Company  
Idaho Power Company  
Utah Power and Light Company

## ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District  
Boise Project Board of Control  
Little Wood River Irrigation District  
Jordan Valley Irrigation District  
Salmon Falls Creek Irrigation Company  
Twin Falls Soil Conservation District  
Twin Lakes Irrigation Company  
Big Wood Irrigation Company  
Owyhee Project - North & South Board of Control

## PRIVATE CORPORATIONS

Amalgamated Sugar Company

*Other organizations and individuals furnish valuable information for  
snow survey reports. Their cooperation is gratefully acknowledged.*

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with the Snow Survey"*

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